



SHEET 1 OF 6

**INFORMATION DISCLOSURE
STATEMENT BY APPLICANT**

(Substitute for form 1449/PTO)

ATTY. DOCKET NO.

070456-0016

SERIAL NO.

10/787,221

APPLICANT

Kouichi OKUGAMI, et al.

FILING DATE

February 27, 2004

GROUP

3682**U.S. PATENT DOCUMENTS**

EXAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US 3,954,517	05-04-1976	JATCZAK et al.	
		US 4,930,909	06-05-1990	MURAKAMI et al.	
		US 5,180,450	01-19-1993	RAO	
		US 5,338,377	08-16-1994	MITAMURA et al.	
		US 5,375,323	12-27-1994	SATA	
		US 5,352,303	10-04-1994	MURAKAMI et al.	
		US 5,427,457	06-27-1995	FURUMURA et al.	
		US 5,427,600	06-27-1995	ITOH et al.	
		US 5,456,136	10-10-1995	YAMASHITA et al.	
		US 5,456,766	10-10-1995	BESWICK et al.	
		US 5,595,610	01-21-1997	MAEDA et al.	
		US 5,611,250	03-18-1997	NARAI et al.	
		US 5,658,082	08-19-1997	TSUSHIMA et al.	
		US 5,775,280	07-07-1998	SCHMIDT et al.	
		US 5,803,993	09-08-1998	YOSHIDA et al.	
		US 5,848,846	12-15-1998	SUGIYAMA et al.	
		US 5,856,249	12-29-1998	MAEDA et al.	
		US 5,944,916	08-31-1999	CHUNG	
		US 5,979,383	11-09-1999	FAVILLE et al.	
		US 6,012,851	01-11-2000	HIRAKAWA et al.	
		US 6,086,686	07-11-2000	TANAKA et al.	
		US 6,095,692	08-01-2000	TAKEMURA	
		US 6,158,263	12-12-2000	MAEDA et al.	
		US 6,251,198 B1	06-26-2001	KOO et al.	

FOREIGN PATENT DOCUMENTS

EXAMINER'S INITIALS	CITE NO.	Foreign Patent Document Country Code ³ -Number 4-Kind Codes (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Figures Appear	Translation Yes No

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	

EXAMINER

DATE CONSIDERED

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Substitute for form 1449/PTO)				ATTY. DOCKET NO. 070456-0016		SERIAL NO. 10/787,221	
				APPLICANT Kouichi OKUGAMI, et al.			
				FILING DATE February 27, 2004		GROUP 3682	
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear		
		US 6,290,398 B1	09-18-2001	FUJIWARA et al.			
		US 6,306,227 B2	10-23-2001	OKAYAMA et al.			
		US 6,328,009 B1	12-11-2001	BROTHERS			
		US 6,447,619 B1	09-10-2002	TAKAYAMA et al.			
		US 6,532,920 B1	03-18-2003	SWEETNAM et al.			
		US 6,582,532 B1	06-24-2003	KUREBAYASHI et al.			
		US 6,699,335 B2	03-02-2004	MURAKAMI et al.			
		US 2002/0082133 A1	06-27-2002	YOSHIKAWA et al.			
		US 2005/0205163 A1	09-22-2005	OHKI			
		US 2004/0228561 A1	11-18-2004	OKUGAMI et al.			
		US 2004/0170761 A1	09-02-2004	LI et al.			
		US 2005/0045247 A1	03-03-2005	OHKI			
		US 2005/0205163 A1	09-22-2005	OHKI			
		US 2007/0169850 A1	07-26-2007	OHKI et al.			
FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	CITE NO.	Foreign Patent Document Country Codes-Number + -Kind Codes (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Figures Appear	Translation Yes No	
		JP 2-190615	07-26-1990	NTN TOYO BEARING CO LTD		English Abstract Only	
		JP 4-254574	09-09-1992	MAZDA MOTOR		English Abstract Only	
		JP 5-179350	07-20-1993	NTN TOYO BEARING CO LTD		English Abstract Only	
		JP 5-263091	10-12-1993			English Abstract Only	
		JP 6-117438	04-26-1994	NTN TOYO BEARING CO LTD		English Abstract Only	
		JP 6-247253	09-06-1994	TOKAI RIKA CO LTD		English Abstract Only	
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
EXAMINER				DATE CONSIDERED			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Substitute for form 1449/PTO)				ATTY. DOCKET NO. 070456-0016		SERIAL NO. 10/787,221	
				APPLICANT Kouichi OKUGAMI, et al.			
				FILING DATE February 27, 2004		GROUP 3682	
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document		Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		US					
FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	CITE NO.	Foreign Patent Document Country Codes-Number + -Kind Codes (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document		Pages, Columns, Lines Where Relevant Figures Appear	Translation Yes No
		JP 6-286577	10-11-1994	TOKAI RIKI CO LTD; TOYOTA MOTOR CORP			English Abstract Only
		JP 9-053148	02-25-1997	KOBE STEEL LTD; NISSAN MOTO			English Abstract Only
		JP 9-176740	07-08-1997	NTN TOYO BEARING CO LTD			English Abstract Only
		JP 9-329139	12-22-1997	NTN TOYO BEARING CO LTD			English Abstract Only
		JP 10-030150	02-03-1998	NIPPON SEIKO KK			English Abstract Only
		JP 10-047334	02-17-1998	NIPPON SEIKO KK			English Abstract Only
		JP 10-103339	04-21-1998	KOYO SEIKO CO			English Abstract Only
		JP 10-110720	04-28-1998	MITSUBISHI MOTORS CORP			English Abstract Only
		JP 10-184701	07-14-1998	NTN TOYO BEARING CO LTD			English Abstract Only
		JP 11-303874	11-02-1999	NIPPON SEIKO KK			English Abstract Only
		JP 2000-038906	02-08-2000	NIPPON SEIKO KK			English Abstract Only
		JP 2000-038907	02-08-2000	NIPPON SEIKO KK			English Abstract Only
		JP 2000-205284	07-25-2000	KOYO SEIKO CO			English Abstract Only
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
EXAMINER				DATE CONSIDERED			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Substitute for form 1449/PTO)				ATTY. DOCKET NO. 070456-0016		SERIAL NO. 10/787,221	
				APPLICANT Kouichi OKUGAMI, et al.			
				FILING DATE February 27, 2004		GROUP 3682	
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document		Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		US					
FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	CITE NO.	Foreign Patent Document Country Codes-Number + -Kind Codes (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document		Pages, Columns, Lines Where Relevant Figures Appear	Translation Yes No
		JP 2000-212721	08-02-2000	NSK LTD			English Abstract Only
		JP 2001-123244	05-08-2001	DAIDO STEEL CO LTD; KOYO SEIKO CO			English Abstract Only
		JP 2001-200314	07-24-2001	NTN TOYO BEARING CO LTD			English Abstract Only
		JP 2002-031212	01-31-2002	KOYO SEIKO CO			English Abstract Only
		JP 2002-070872	03-08-2002	NSK LTD			English Abstract Only
		JP 2002-194438	07-10-2002	NSK LTD			English Abstract Only
		JP 2003-083337	03-19-2003	NSK LTD			English Abstract Only
		JP 2003-083339	03-19-2003	NTN TOYO BEARING CO LTD			English Abstract Only
		JP 2003-156050	05-30-2003				English Abstract Only
		JP 2003-226918	08-15-2003	NTN TOYO BEARING CO LTD			English Abstract Only
		JP 2003-226919	08-15-2003	NTN TOYO BEARING CO LTD			English Abstract Only
		JP 2003-287035	10-10-2003	NSK LTD			English Abstract Only
		JP 2003-294034	10-15-2003	NSK LTD			English Abstract Only
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
EXAMINER				DATE CONSIDERED			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Substitute for form 1449/PTO)				ATTY. DOCKET NO. 070456-0016		SERIAL NO. 10/787,221	
				APPLICANT Kouichi OKUGAMI, et al.			
				FILING DATE February 27, 2004		GROUP 3682	
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document		Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		US					
FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	CITE NO.	Foreign Patent Document Country Codes-Number + -Kind Codes (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document		Pages, Columns, Lines Where Relevant Figures Appear	Translation Yes No
		JP 63-185917	08-01-1988	MURAKAMI TSUMORU			English Abstract Only
		DE 10254635	06-12-2003	NTN TOYO BEARING CO LTD			English Abstract Only
		DE19960803	06-21-2000	NTN TOYO BEARING CO LTD			English Abstract Only
		EP 0458646	11-27-1991	AICHI STEEL WORKS LTD; KOYO SEIKO CO; NIPPON DENSO CO			English Abstract Only
		EP 0626468	11-30-1994	SKF IND TRADING & DEV			English Abstract Only
		EP 0811789	12-10-1997	KOYO SEIKO CO			English Abstract Only
		EP 0950723	10-20-1999	KOMATSU MFG CO LTD			English Abstract Only
		EP 1158064	11-28-2001	KOYO SEIKO CO			English Abstract Only
		EP 1273672	01-08-2003	KOMATSU MFG CO LTD			English Abstract Only
		EP 0723034	07-24-1996	DOWA MINING CO			English Abstract Only
		GB 2258274	02-03-1993	NSK LTD			English Abstract Only
		FR 2 841 907					X
		WO 91/00929	01-24-1991				English Abstract Only
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
EXAMINER				DATE CONSIDERED			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
 † Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Substitute for form 1449/PTO)				ATTY. DOCKET NO. 070456-0016		SERIAL NO. 10/787,221	
				APPLICANT Kouichi OKUGAMI, et al.			
				FILING DATE February 27, 2004		GROUP 3682	
U.S. PATENT DOCUMENTS							
EXAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document		Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
		US					
FOREIGN PATENT DOCUMENTS							
EXAMINER'S INITIALS	CITE NO.	Foreign Patent Document Country Codes-Number + -Kind Codes (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document		Pages, Columns, Lines Where Relevant Figures Appear	Translation Yes No
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.					
		Japanese Office Action, with English translation, issued in Japanese Patent Application No. JP 2002-194775, mailed March 22, 2006.					
		Japanese Office Action, with English translation, issued in Japanese Patent Application No. JP 2002-194793, mailed March 22, 2006.					
		European Search Report issued in European Patent Application No. EP 05 70 3409, mailed April 4, 2007.					
		Chinese Office Action, with English translation, issued in Chinese Patent Application No. CN 200410008248.9, mailed April 27, 2007.					
		BURRIER, JR., H., "Hardenability of Carbon and Low-Alloy Steels", 2002, ASM International					
		VANDER VOORT, G., "Embrittlement of Steels", 2002 ASM International					
		KIM, C., et al., "Influence of Subzero and Shot-Peening Treatments on Impact and Fatigue Fracture Properties of Case-Hardened Steels", J. Heat Treat., June 1981, Pages 43-53, Vol 2 No 1					
		Annual Book of ASTM Standards Section Three Metals Test Methods and Analytical Procedures, 2003, Volume 03.01, ASTM International Standards Worldwide					
		"Methods of austenite grain size determination for steel", 1998, Japanese Industrial Standard JIS G 0551, Japanese Standards Association, Tokyo JAPAN					
		"Method of impact test for metallic materials", 1998, Japanese Industrial Standard JIS Z 2242, Japanese Standards Association, Tokyo JAPAN					
		"Test pieces for impact test for metallic materials", 1998, Japanese Industrial Standard JIS Z 2202, Japanese Standards Association, Tokyo JAPAN					
		Japanese Office Action, with English translation, issued in Japanese Patent Application No. JP 2002-194804, mailed March 20, 2007.					
		Japanese Office Action, with English translation, issued in Japanese Patent Application No. JP 2002-303036, mailed April 25, 2006.					
EXAMINER				DATE CONSIDERED			

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.
 1 Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached.